



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,373	09/20/2001	Dominick G. More	102014-102	7864

34704 7590 08/27/2003

BACHMAN & LAPOINTE, P.C.
900 CHAPEL STREET
SUITE 1201
NEW HAVEN, CT 06510

EXAMINER

LUGO, CARLOS

ART UNIT	PAPER NUMBER
----------	--------------

3677

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,373

Applicant(s)

MORE ET AL.

Examiner

Carlos Lugo

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-21 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Translation FR 610973*.

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on June 30, 2003.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1,2,4,5,13 and 18-20 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,561,662 to Villepoix et al (Villepoix).

Regarding claims 1,5,13,18 and 20, Villepoix discloses a vacuum seal comprising an outer metallic annular member (16) having a generally C-shaped longitudinal radial cross section, and an inner metallic annular member (14) having a generally C-shaped longitudinal radial cross section.

The outer metallic annular member has a pair of oppositely directed longitudinally outward-projecting ridge (20).

As to claim 2, Villepoix discloses that the inner member provides the primary structural integrity of the seal.

As to claim 4, Villepoix discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 1 Lines 31-35).

As to claim 19, Villepoix illustrates that the outer member is thickest along each of the ridges.

4. **Claims 1-3,5,13 and 18-20 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 5,022,663 to Fages et al (Fages).

Regarding claims 1,5,13,18 and 20, Fages discloses a vacuum seal comprising an outer metallic annular member (16) having a generally C-shaped longitudinal radial cross section, and an inner metallic annular member (14) having a generally C-shaped longitudinal radial cross section.

The outer metallic annular member has a pair of oppositely directed longitudinally outward-projecting ridge (18).

As to claim 2, Fages discloses that the inner member provides the primary structural integrity of the seal.

As to claim 3, Fages discloses that the thickness of the inner member (14) is about 2 to 4 times greater than the thickness of the outer member (16).

As to claim 19, Fages illustrates that the outer member is thickest along each of the ridges.

5. **Claims 6,7,9,13,20 and 21 are rejected** under 35 U.S.C. 102(e) as being anticipated by FR Pat No 610,973 to Barbarou.

Regarding claims 6,13,20 and 21, Barbarou discloses a seal comprising outer and inner metallic annular members (A and B respectively) having longitudinal radial sections.

The outer member is generally C-shaped and opens radially outward. The inner member is nested within the outer member and is generally C-shaped and opens

radially outward. The inner member has a wall thickness effective to maintain the outer member in engagement in absence of a spring nested within the inner member.

As to claim 7, Barbarou discloses that the inner member has a full plating of a copper-base material (Lines 33-39).

As to claim 9, the claim is consider as intending use of the seal. Applicant is reminded that a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus, which differentiates it from a prior art reference disclosing the structural limitations of the claim.

6. **Claims 6,8,9,13,15-17 and 20 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 4,218,067 to Halling.

Regarding claims 6,13 and 20, Halling discloses a seal comprising outer and inner metallic annular members (14 and 12 respectively) having longitudinal radial sections.

The outer member is generally C-shaped and opens radially outward. The inner member is nested within the outer member and is generally C-shaped and opens radially outward. The inner member has a wall thickness effective to maintain the outer member in engagement in absence of a spring nested within the inner member.

As to claims 8 and 17, Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

As to claim 9, the claim is considered as intending use of the seal. Applicant is reminded that a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus, which differentiates it from a prior art reference disclosing the structural limitations of the claim.

As to claims 15 and 16, Halling discloses that the seal includes at least one plating coating (16).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 4 and 14 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,022,663 to Fages et al (Fages) in view of US Pat No 4,218,067 to Halling.

Regarding claim 4, Fages fails to disclose that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material.

Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an inner member with a plating of a copper material, as

taught by Halling, into a seal as described by Fages, in order to use the material characteristics in favor of the sealing between the outer member and the flanges.

As to claim 14, Fages fails to disclose that the seal includes at least one plating layer.

Halling teaches that is known in the art to have a seal with at least one plating coating (16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a seal with at least one plating coating, as taught by Halling, into a device as described by Fages, in order to give protection to the outer metallic annular member.

9. **Claims 8 and 17 are rejected** under 35 U.S.C. 103(a) as being unpatentable over FR Pat No 610,973 to Barbarou in view of US Pat No 4,218,067 to Halling.

Barbarou fails to disclose that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material.

Halling discloses that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Col. 3 Lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an inner member with a plating of a copper material, as taught by Halling, into a seal as described by Barbarou, in order to use the material characteristics in favor of the sealing between the outer member and the flanges.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,561,662 to Villepoix et al (Villepoix) or US Pat No 5,022,663 to Fages et al (Fages) in view of US Pat No 4,218,067 to Halling.

Villepoix and Fages fail to disclose a method of manufacturing the seal using welding, die forming and rolling methods.

Halling teaches that is known in the art to use a method to manufacture a seal using welding, die forming and rolling methods (Col. 2 Lines 40-48).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a manufacturing method, as taught by Halling, into a device as described by either Villepoix or Fages, in order to create the seal.

Allowable Subject Matter

11. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments filed on June 30, 2003 have been fully considered but they are not persuasive.

Regarding applicant's arguments that Villepoix fails to disclose that the inner member has a longitudinal strength and elasticity effective to maintain the ridges in engagement with the flanges (Page 8 Line 15), Villepoix discloses the invention as claimed. Claims 1 and 13 does not establish that this occurs in the absence of a spring nested within the inner member (As recited in claim 6). Therefore, if the spring

exerts this force towards the inner member, then the inner member is capable of maintain the ridges in engagement with the flanges.

As to applicant's arguments that Villepoix fails to disclose that the inner member is formed of a nickel alloy and the outer member is formed of an aluminum material or copper (Page 9 Line 4), Villepoix discloses this limitation (Col. 1 Lines 31-35).

As to applicant's arguments that Fages fails to disclose the invention as claimed in claims 1-3,5,13,18 and 19 (Page 9 Line 15), Fages discloses the invention as claimed (see arguments presented to Villepoix).

As to applicant's arguments that Barbarou fails to disclose the invention as claimed in claims 6,7,9 and 13 (Page 10 Line 4), Barbarou disclose the invention as claimed (see translation).

Barbarou discloses an annular seal comprising an outer member (A) having a C-shape and an inner member (B) also having a C-shape.

The inner member is nested within the outer member. The inner member has a wall thickness effective to maintain the outer member in engagement with the flanges in the absence of a spring inside the inner member (Page 2 Lines 4-20).

As to applicant's arguments that Halling fails to disclose the invention as claimed in claims 6 and 13 (Page 10 Line 17), Halling discloses the invention as claimed. The fact that the inner member (12) opens radially outward and the outer member (14) opens radially inwards does not implies that the inner member does not has a wall thickness effective to maintain the outer member in engagement with the flanges. Applicant is reminded that when the inner member is subject to

compression (a force towards the interior of the inner member), it exerts an opposite force towards the outer member in order to create force equilibrium.

Therefore, the inner member has a wall thickness effective to maintain the outer member in engagement with the flanges.

As to applicant's arguments that Halling fails to disclose the invention as claimed in claims 11 and 12 (Page 10 Line 20), Villepoix or Fages, as modified by Halling, discloses that is known in the art to manufacture a seal using a welding, die forming and rolling methods.

As to applicant's arguments that Fages, as modified by Halling, fails to disclose the invention as claimed (Page 11 Line 1), Fages, as modified by Halling, discloses the invention as claimed.

The selection of a known material based upon its suitability for the intended use is a design consideration within the level of skill of one skilled in the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

As to applicant's arguments that Halling, as modified by Villepoix, discloses the invention as claimed in claim 7 (Page 11 Line10), the rejection is withdrawn.

As to applicant's arguments that Barbarou, as modified by Halling, fails to disclose the invention as claimed in claims 8 and 17 (Page 12 Line 5), Barbarou, as modified by Halling, discloses the invention as claimed (see arguments presented to Fages, as modified by Halling).

As to applicant's argument's that the Prior Art presented by the examiner fails to disclose the invention claimed in claim 20 (Page 12 Line 14), the Prior Art presented discloses the invention as claimed.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 703-305-9747. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.


Carlos Lugo
Examiner
Art Unit 3677

Application/Control Number: 09/937,373

Page 11

Art Unit: 3677

August 25, 2003



ROBERT J. SANDY
PRIMARY EXAMINER